

In the Claims

Please amend the claims as follows:

1 1. (Currently Amended) A method of image data processing
2 comprising the steps of:

3 storing image data in a memory having data words of a
4 predetermined data width, each data word including a plurality of
5 image pixels adjacently disposed on a single scan line, a set of a
6 predetermined number of consecutive data words corresponding to a
7 two dimensional tile of ~~the~~ an image whereby adjacent data words
8 ~~store~~ include image pixels of adjacent scan lines;

9 transferring a tile of image data from the memory to a cache;

10 performing image operations upon said tile of image data
11 ~~stored in~~ transferred to the cache; and

613 12 transferring said tile of image data from the cache to the
13 memory.

1 2. (Currently Amended) The method of claim 1, wherein:

2 said steps of transferring a tile of image data from the
3 memory into a the cache, performing image operations ~~of~~ upon said
4 tile of image data ~~stored in~~ transferred to the cache, and
5 transferring said tile of image data from the cache to the memory
6 are repeated for each tile of image data.

1 3. (Currently Amended) The method of claim 1, wherein:

2 said steps of transferring a tile of image data from the
3 memory into a the cache, performing image operations ~~of~~ upon said
4 tile of image data ~~stored in~~ transferred to the cache, and
5 transferring said tile of image data from the cache to the memory
6 are performed by different data processors for different tiles.

1 4 (Currently Amended) The method of claim 1, wherein:
2 said image ~~processing~~ operations includes read, modify and
3 write of individual pixels within a data word.

1 5. (Currently Amended) An image data processing system
2 comprising:

3 a memory storing image data having data words of a
4 predetermined data width, each data word including a plurality of
5 image pixels adjacently disposed on a single scan line, a set of a
6 predetermined number of consecutive data words corresponding to a
7 two dimensional tile of ~~the~~ an image whereby adjacent data words
8 ~~store~~ include image pixels of adjacent scan lines;

9 a tile cache ~~memory~~ capable of storing a tile of image data
10 from said memory;

11 a data processing apparatus connected to said memory and said
12 tile cache ~~memory~~, said data processing apparatus programmed to

13 transfer a tile of image data from said memory into said
14 tile cache ~~memory~~,

15 perform an image operation ~~on~~ upon said tile of image
16 data ~~stored in~~ transferred to said tile cache ~~memory~~, and

17 transfer ~~said~~ that tile of image data from said tile
18 cache to said memory.

1 6. (Currently Amended) The image data processing system of
2 claim 5, wherein:

3 said data processing apparatus is further programmed to
4 sequentially operate ~~on differing~~ upon different tiles of image
5 data ~~sequentially for each tile of image data~~.

1 7. (Currently Amended) The image data processing system of
2 claim 5, further comprising:

3 a second data processing apparatus connected to said memory
4 and said tile cache ~~memory~~, said second data processing apparatus
B13-5 programmed to

6 transfer a tile of image data from said memory ~~into~~ to
7 said tile cache ~~memory~~,

8 perform an image operation ~~on~~ upon said tile of image
9 data ~~stored in~~ transferred to said tile cache ~~memory~~, and

10 transfer ~~said~~ that tile of image data from said tile
11 cache to said memory; and

12 wherein said data processing apparatus and said second data
13 processing apparatus are programmed to operate upon ~~differing~~
14 different tiles of image data simultaneously.
